

# PJEC2415VM1WS-AU

## ESD Protection

**V<sub>RWM</sub>**

**24V/15V**

## Features

- Bidirectional ESD protection of one line
- IEC61000-4-2(ESD): ±15kV Air, ±8kV Contact Compliance with the capability up to ±30kV
- IEC61000-4-4(EFT): 40A(5/50nS)
- IEC61000-4-5(Lightning): 3A(8/20μS)
- Low leakage current, maximum of 0.05μA at rated voltage
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

## Mechanical Data

- Case: SOD-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00014 ounces, 0.0041 grams
- Marking: VM

## Applications

- LIN-bus protection
- Automotive application

**SOD-323**

Unit : inch(mm)

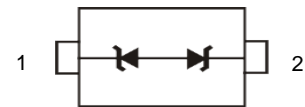
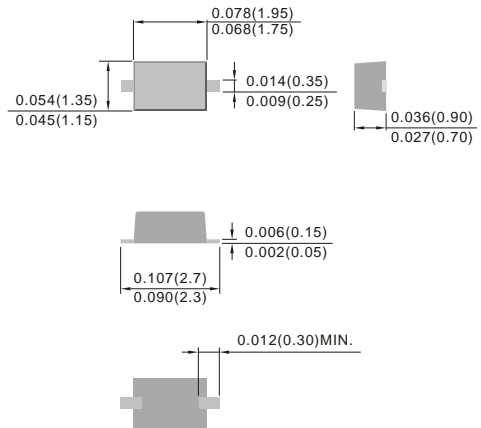


Fig.130(TOP VIEW)



Cathode 1 (15V)  
Cathode 2 (24V)

## Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp=8/20μs)	P <sub>PP</sub>	160	W
ESD IEC61000-4-2(Air)	V <sub>ESD</sub>	±30	kV
ESD IEC61000-4-2(Contact)		±30	
Operating Junction Temperature	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C



## PJEC2415VM1WS-AU

Electrical Characteristics ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage (24V)	$V_{RWM}$	-	-	-	24	V
Reverse Stand-Off Voltage (15V)		-	-	-	15	V
Reverse Breakdown Voltage (24V)	$V_{BR}$	$I_{BR}=5\text{mA}$	25.4	-	30.3	V
Reverse Breakdown Voltage (15V)			17.1	-	20.3	V
Reverse Leakage Current (24V)	$I_R$	$V_R=24\text{V}$	-	1	50	nA
Reverse Leakage Current (15V)		$V_R=15\text{V}$	-	1	50	
Clamping Voltage (24V)	$V_{CL}$	$I_{PP}=1\text{A}, t_P=8/20\mu\text{s}$	-	-	40	V
		$I_{PP}=3\text{A}, t_P=8/20\mu\text{s}$	-	-	50	
Clamping Voltage (15V)		$I_{PP}=1\text{A}, t_P=8/20\mu\text{s}$	-	-	25	
		$I_{PP}=5\text{A}, t_P=8/20\mu\text{s}$	-	-	35	
Off State Junction Capacitance	$C_J$	0Vdc Bias $f=1\text{MHz}$	-	13	17	pF

# PJEC2415VM1WS-AU

## TYPICAL CHARACTERISTIC CURVES

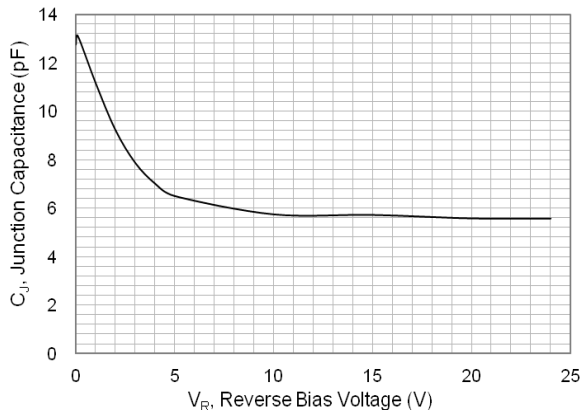


Fig.1 Typical Junction Capacitance(24V)

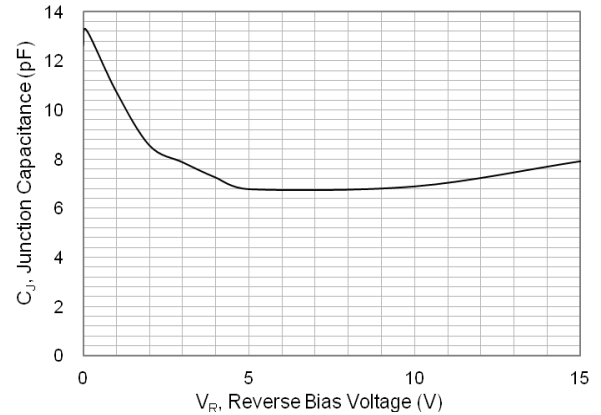


Fig.2 Typical Junction Capacitance(15V)

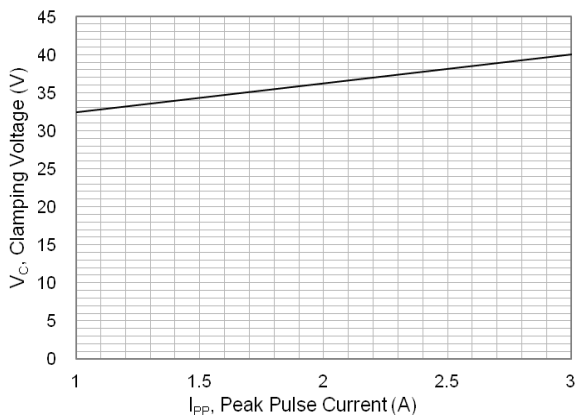


Fig.3 Typical Peak Clamping Voltage(8/20μs)(24V)

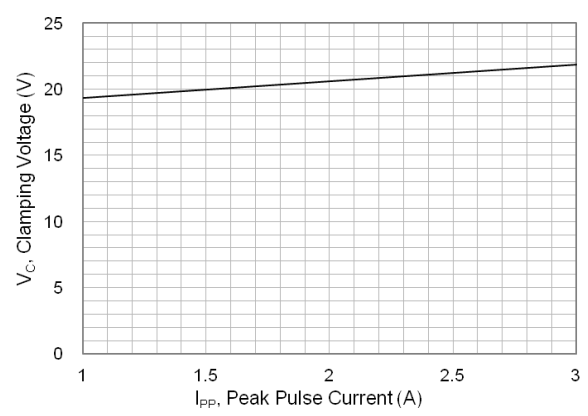


Fig.4 Typical Peak Clamping Voltage(8/20μs)(15V)

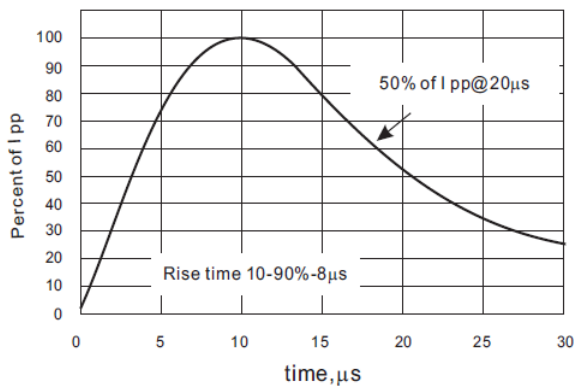


Fig.5 8/20μs Pulse Waveform

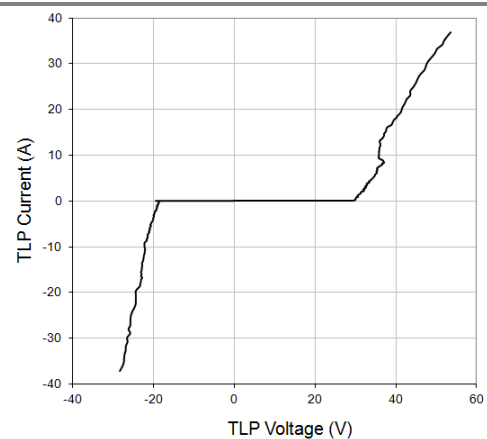


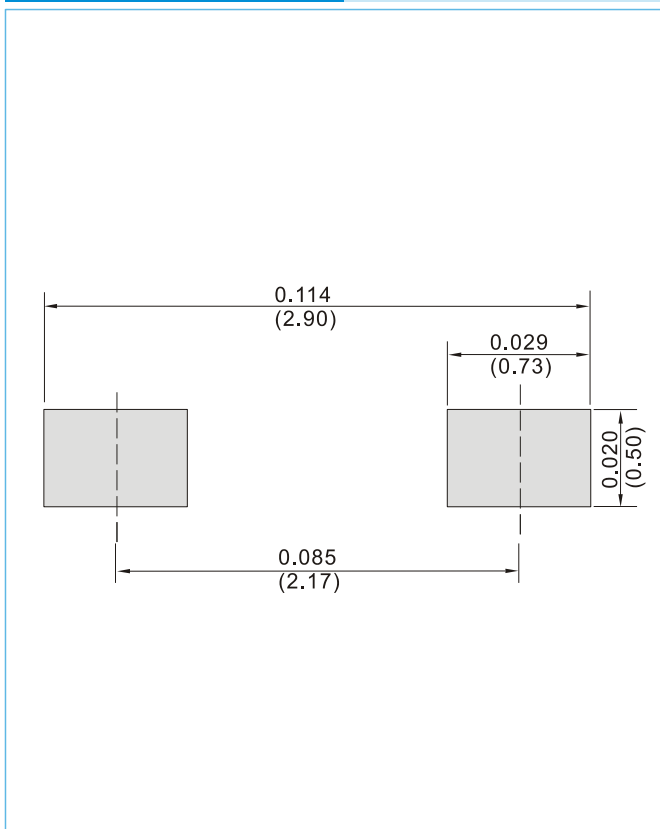
Fig.6 Transmission Line Pulsing (TLP) Measurement

## PJEC2415VM1WS-AU

### MOUNTING PAD LAYOUT

SOD-323

Unit : inch(mm)



### ORDER INFORMATION

- Packing information  
T/R – 12K per 13" plastic Reel  
T/R – 5K per 7" plastic Reel



## PJEC2415VM1WS-AU

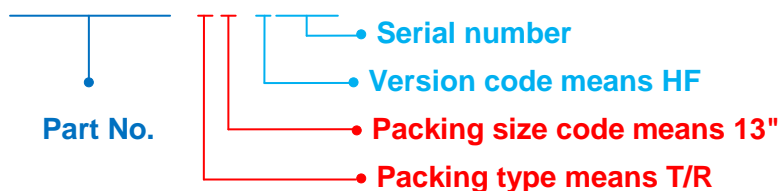
**Part No\_packing code\_Version**

PJEC2415VM1WS-AU\_R1\_000A1

PJEC2415VM1WS-AU\_R2\_000A1

**For example :**

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



## **PJEC2415VM1WS-AU**

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